The Science of the Total Environment, 64 (1987) 348
Elsevier Science Publishers B.V., Amsterdam — Printed in The Netherlands

Author Index

An, P. 89

Baur, C. 303
Beentjes, L.B. 253
Böhm, J. 303
Boniforti, R. 181
Brix, H. 239
Buffle, J. 41
Busi, F. 231

Caldeira, M.T.M. 75
Campanella, L. 295
Cardarelli, E. 295
Ciceri, G. 191

D'Angelantonio, M. 231
De Vitre, R. 41
Drasch, G.A. 303
Duarte, A.D.C. 75
Duijsings, J.H. 253

Edmonds, J.S. 317

Ferri, T. 295
Francesconi, K.A. 317
Frigieri, P. 191

Gasiorowski, K. 117
Genova, N. 13
Guzzi, L. 191

Hall, A. 75
Hoffmann, M.R. 99
Hoffmann, P. 1
Hong, A.P.K. 99

Irgolic, K.J. 61

Jensen, A.A. 259
Jones, C. 211

Kozlowski, H. 117
Krivan, V. 21

Langqiu, X. 89
Lieser, K.H. 1
Linder, P.W. 149
Lucas, M.F.B. 75
Lyngby, J.E. 239

Marsicano, F. 211
Martell, A.E. 125
Meloni, S. 13
Mulazzani, Q.G. 231
Murray, K. 149

Oddone, M. 13

Pawlowski, T. 117
Petronio, B.M. 295
Pupella, A. 295

Queirazza, G. 191

Raffaelli, V. 231

Schulte, E.H. 163
Scoppa, P. 163
Smith, R.M. 125
Spychala, J. 117
Swiatek, J. 117

Tubertini, O. 231

Williams, D.R. 211

Zali, O. 41
Zumstein, J. 41

The Science of the Total Environment, 64 (1987) 348
Elsevier Science Publishers B.V., Amsterdam — Printed in The Netherlands

Author Index

An, P. 89

Baur, C. 303
Beentjes, L.B. 253
Böhm, J. 303
Boniforti, R. 181
Brix, H. 239
Buffle, J. 41
Busi, F. 231

Caldeira, M.T.M. 75
Campanella, L. 295
Cardarelli, E. 295
Ciceri, G. 191

D'Angelantonio, M. 231
De Vitre, R. 41
Drasch, G.A. 303
Duarte, A.D.C. 75
Duijsings, J.H. 253

Edmonds, J.S. 317

Ferri, T. 295
Francesconi, K.A. 317
Frigieri, P. 191

Gasiorowski, K. 117
Genova, N. 13
Guzzi, L. 191

Hall, A. 75
Hoffmann, M.R. 99
Hoffmann, P. 1
Hong, A.P.K. 99

Irgolic, K.J. 61

Jensen, A.A. 259
Jones, C. 211

Kozlowski, H. 117
Krivan, V. 21

Langqiu, X. 89
Lieser, K.H. 1
Linder, P.W. 149
Lucas, M.F.B. 75
Lyngby, J.E. 239

Marsicano, F. 211
Martell, A.E. 125
Meloni, S. 13
Mulazzani, Q.G. 231
Murray, K. 149

Oddone, M. 13

Pawlowski, T. 117
Petronio, B.M. 295
Pupella, A. 295

Queirazza, G. 191

Raffaelli, V. 231

Schulte, E.H. 163
Scoppa, P. 163
Smith, R.M. 125
Spychala, J. 117
Swiatek, J. 117

Tubertini, O. 231

Williams, D.R. 211

Zali, O. 41
Zumstein, J. 41

The Science of the Total Environment, 64 (1987) 349
Elsevier Science Publishers B.V., Amsterdam — Printed in The Netherlands

Subject Index

Acid rain, surface water pH measurements 211
Aminopolycarboxylates, formation parameters 125
Arsenic content of seafood 317
Arsenobetaine content of seafood 317

Carboxylates, formation parameters 125
Chernobyl, radionuclides in rainwater 253
Combustion gases, control of by radiation treatment 231

Determination of species distribution 41

Electrophoresis, application to speciation in sludges 295
Element-specific detectors, for determination of organic compounds of metals and metalloids 61

Formation parameters of metal complexes 125
Fulvic acids, characterization of metal-binding sites 149
—, interactions with inorganic selenium 89

Heavy metals, monitoring using biological indicators and sediment 293
Humic acid, interactions with inorganic selenium 89

Inorganic selenium, interactions with humic and fulvic acids 89

Lanthanides, simulator elements for transuranics 181
Lead content of human bones 303
Lead, influence of on concentrations of Cu, Fe and Zn in rat tissues 117

Mercury, dispersion in a shallow coastal lagoon 75
Metal toxicity, interactions among toxic elements 117

Polychlorobiphenyls in human tissues 259
Polychlorodibenzo-*p*-dioxins in human tissues 259
Polychlorodibenzofurans in human tissues 259

Radiation treatment of combustion gases 231
Radioactive liquid discharges from nuclear power plants, environmental study 191
Radiochemical neutron activation, for determination of rare-earth elements 13
Radionuclides in rainwater 253
Radiotracers, for determining the accuracy of trace element analysis 21
Rare-earth elements, in NBS standard reference materials 13
Reduced sulfur compounds, catalytic oxidation by Co(II) phthalocyanide complexes 99
—, kinetics and mechanisms of reactions 99

Speciation in sludges 64

Technetium, sources and behaviour in the environment 163
Thorium, simulator element for transuranics 181
Trace element analyses, accuracy determined by radiotracers 21
Trace metal determination in biological and environmental samples 1
Transuranics, simulator elements 181
Trimethylarsine oxide content of seafood 317

Uranium, simulator element for transuranics 181

The Science of the Total Environment, 64 (1987) 350–351
Elsevier Science Publishers B.V., Amsterdam — Printed in The Netherlands

Contents

VOLUME 64 (1987)

(Abstracted/Indexed in: Biol. Abstr., Chem. Abstr., Curr. Contents AB & ES, Environ. Period. Bibliogr., Excerpta Med., Geo Abstr., Oceanogr. Lit. Rev., PASCAL/CNRS, Selected Water Resour. Abstr.)

Preface ix

Determination of metals in biological and environmental samples
P. Hoffmann and K.H. Lieser (Darmstadt, F.R.G.) 1

Rare-earth elements in the NBS standard reference materials Spinach, Orchard Leaves, Pine Needles and Bovine Liver
S. Meloni, N. Genova and M. Oddone (Pavia, Italy) 13

Radiotracers for the determination of the accuracy of trace element analyses
V. Krivan (Ulm/Donau, F.R.G.) 21

Analytical methods for the direct determination of inorganic and organic species: seasonal changes of iron, sulfur, and pedogenic and aquogenic organic constituents in the eutrophic Lake Bret, Switzerland
J. Buffle, O. Zali, J. Zumstein and R. De Vitre (Geneva, Switzerland) 41

Analytical procedures for the determination of organic compounds of metals and metalloids in environmental samples
K.J. Irgolic (College Station, TX, U.S.A.) 61

Sources and sinks of mercury in the coastal lagoon of Aveiro, Portugal
A. Hall, A.C. Duarte, M.T.M. Caldeira and M.F.B. Lucas (Aveiro, Portugal) 75

The effects of humic acid on the chemical and biological properties of selenium in the environment
Peng An and Xu Langqiu (Beijing, China) 89

Catalytic oxidation of reduced sulfur compounds by homogeneous and heterogeneous Co(II) phthalocyanine complexes
M.R. Hoffmann and A.P.K. Hong (Pasadena, CA, U.S.A.) 99

The influence of subcutaneously administered lead(II) acetate on the concentrations of copper, iron, and zinc in the blood, kidney, liver, and spleen of rats
K. Gasiorowski, T. Pawlowski, J. Spychala, J. Swiatek and H. Kozlowski (Wroclaw, Poland) 117

Critical stability constants, enthalpies and entropies for the formation of metal complexes of aminopolycarboxylic acids and carboxylic acids
R.M. Smith and A.E. Martell (College Station, TX, U.S.A.) 125

Statistical determination of the molecular structure and the metal binding sites of fulvic acids
P.W. Linder (Rondebosch, South Africa) and K. Murray (Pretoria, South Africa) . . . 149

Sources and behavior of technetium in the environment
E.H. Schulte and P. Scoppa (La Spezia, Italy) 163

Lanthanides, uranium, and thorium as possible simulators of the behavior of transuranics in the aquatic environment
R. Boniforti (La Spezia, Italy) 181

Environmental studies at pre-operational and operational stages of nuclear power plants in Italy: chemical and radioanalytical implications
G. Queirazza, L. Guzzi (Milano, Italy), G. Ciceri and P. Frigieri (Segrate, Italy) 191

Surface water pH measurements — theory and practice
C. Jones, D.R. Williams (Cardiff, U.K.) and F. F. Marsicano (Durban, South Africa). . 211
A kinetic model for radiation treatment of combustion gases
F. Busi, M. D'Angelantonio, Q.G. Mulazzani, V. Raffaelli and O. Tubertini (Bologna, Italy). 231
Monitoring of heavy metal contamination in the Limfjord, Denmark, using biological indicators and sediment
J.E. Lyngby (Hørsholm, Denmark) and H. Brix (Risskov, Denmark) 239
Radioactive contamination in Nijmegen rainwater after the Chernobyl accident
L.B. Beentjes and J.H. Duijsings (Nijmegen, The Netherlands). 253
Polychlorobiphenyls (PCBs), polychlorodibenzo-*p*-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) in human milk, blood and adipose tissue
A.A. Jensen (Copenhagen, Denmark). 259
An experimental approach to speciation in sludges
A. Pupella, L. Campanella, E. Cardarelli, T. Ferri and B.M. Petronio (Rome, Italy) . . 295
Lead in human bones. Investigations on an occupationally non-exposed population in southern Bavaria (F.R.G.). I. Adults
G.A. Drasch, J. Böhm and C. Baur (Munich, F.R.G.) 303
Trimethylarsine oxide in estuary catfish (*Cnidoglanis macrocephalus*) and school whiting (*Sillago bassensis*) after oral administration of sodium arsenate; and as a natural component of estuary catfish
J.S. Edmonds and K.A. Francesconi (North Beach, Western Australia). 317